CONTENTS OF VOLUME 38

Abercrombie, M. J. and **Jones, J. K. N.** The reaction of sodium metaperiodate with some nitrogen derivatives of carbohydrates, 308.

A chemical procedure for determination of the C^{14} distribution in some labelled carbohydrates, 1999.

Abercrombie, M. J., Jones, J. K. N., Lock, M. V., Perry, M. B., and **Stoodley, R. J.** The polysaccharides of *Cryptococcus laurentii* (NRRL Y-1401). Part I, 1617.

Abercrombie, M. J., Jones, J. K. N., and **Perry, M. B.** The polysaccharides of *Cryptococcus laurentii* (Y1401). Part II. Biosynthesis of the carbohydrates found in the acidic polysaccharide, 2007.

Abramovitch, R. A. Tryptamines, carbolines, and related compounds. Part VII. Internuclear cyclization onto a pyridine ring, 2273.

Abramovitch, R. A., Adams, K. A. H., and **Notation, A. D.** Tryptamines, carbolines, and related compounds. Part VIII. δ-Carboline, 2152.

Abramovitch, R. A. and **Marko, A. M.** The structure of 2-*p*-dimethylaminobenzylideneindoxyl and its salts, 131.

Abramovitch, R. A. and **Muchowski, J. M.** Tryptamines, carbolines, and related compounds. Part V. 3-(α-Alkyl-β-aminoethyl) indoles, 554.

Tryptamines, carbolines, and related compounds. Part VI. Stereochemistry of the Michael addition of ethyl malonate to 1-cyclohexane cyanide, 557.

Abramovitch, R. A. and **Notation, A. D.** Arylpyridines. Part II. Reaction of phenyllithium with 3-methoxy- and 3-amino-pyridine, 1445.

Abramovitch, R. A., Seng, G. C., and **Notation, A. D.** Differentiation between some 2,3- and 2,5-disubstituted pyridine derivatives by infrared spectroscopy, 624.

Arylpyridines. Part I. Orientation in the reaction of phenyllithium with some 3-substituted pyridines, 761.

Accomazzo, M. A. See Sourirajan, S., 1990.

Adamek, E. G. and **Purves, C. B.** The location of xanthate groups in partially substituted starch xanthates, 2425.

Adams, G. A. Structure of an arabogalactan from tamarack (*Larix laricina*), 280.

Constitution of an acidic xylan from tamarack (*Larix laricina*), 2402.

See also Siddiqui, I. R., 2029.

Adams, G. A. and **Bishop, C. T.** Constitution of an arabogalactan from maple sap, 2380.

Adams, K. A. H. See Abramovitch, R. A., 2152.

Ahmad, A., Eelnurme, I., and **Spenser, I. D.** Indolyl-3-acetaldoxime, 2523.

Ahmad, A. and **Spenser, I. D.** Indolyl-3-pyruvic acid oxime as the precursor of indolyl-3-acetonitrile, 1625.

Allan, E. A. See Reeves, L. W., 1249.

Amos, A. A. and **Ziegler, P.** Bile acid derivatives, 1130.

Andrews, D. A., Hurtubise, F. G., and **Krässig, H.** The presence of monothiocarbonate substituents in cellulose xanthates, 1381.

Anet, F. A. L. and **Bavin, P. M. G.** Studies in the Wagner–Meerwein rearrangement. Part IV. Derivatives of benz[b]fluorene, 240.

Anet, F. A. L. and **Muchowski, J. M.** Lithium aluminum hydride reduction of sterically hindered aromatic nitro compounds, 2526.

Anet, R. and **Somasekhara, S.** 3-Benzyl-2-methyl-3,4-dihydro-4-ketoquinazoline, 746.

Antia, N. J. and **Perry, M. B.** A new synthesis of methyl β-D-gulopyranoside, 1917.

Archambault, J. and **Rivest, R.** Co-ordination complexes of titanium (IV) halides. 1. Preparation and infrared spectra of the complexes of titanium (IV) halides with N,N-dimethyl and N,N-diphenyl formamide, 1331.

Armstrong, W. A. and **Grant, D. W.** The aqueous benzoate system as a sensitive dosimeter for ionizing radiations, 845.

Ayer, W. A. and **Iverach, G. G.** The structure of lycodine, 1823.

Azzam, A. M. Theoretical studies on solvation. Part II. New theory for evaluation of ionic solvation number for divalent ions at 25° C, 993.

Studies on ionic solvation. Part III. New theory for calculating heats of hydration of monovalent ions at 25° C, 2203.

Back, M. H. and **Sehon, A. H.** The thermal decomposition of phenyl methyl sulphide, 1076.

The thermal decomposition of phenylacetic acid, 1261.

The thermal decomposition of diphenylacetic acid, 1271.

Bader, R. F. W. The use of the Hellmann–Feynman theorem to calculate molecular energies, 2117.

Baerg, A. P. and **Bartholomew, R. M.** Note on the thermal neutron capture cross section of Cs^{133}, 2528.

Baerg, A. P., Bartholomew, R. M., and **Betts, R. H.** Search for independent formation of Cs^{134m} in fission, 2147.

Bailey, R. A. and **Yaffe, L.** The separation of some inorganic ions by high-voltage electromigration in paper, 1871.

Some factors affecting the zone mobility of inorganic ions during electromigration in paper, 2074.

Balasubramanian, A. See Rao, C. N. R., 2508.

Bannard, R. A. B. See Casselman, A. A., 1277.

Barclay, L. R. C., Hilchie, J. W., Gray, A. H., and (*in part*) **Hall, N. D.** Cyclialkylations of alkyl benzenes with olefins and alkyl halides, 94.
Bardwell, J. See Cherneskey, M., 482.
Barrette, J. P. See Lemieux, R. U., 656.
Barth, C. A. See Kaplan, J., 1688.
Bartholomew, R. M. See Baerg, A. P., 2147, 2528.
Bartlet, J. C. and **Smith, D. M.** The determination of the areas of resolved and partially resolved chromatography peaks, 2057.
Basco, N. and **Norrish, R. G. W.** Vibrational disequilibrium in reactions between atoms and molecules, 1769.
Basmadjian, D. Adsorption equilibria of hydrogen, deuterium, and their mixtures. Part I, 141.
Adsorption equilibria of hydrogen, deuterium, and their mixtures. Part II, 149.
Bavin, P. M. G. Aliphatic chemistry of fluorene. Part II. An unusual Grignard reaction, 882.
Aliphatic chemistry of fluorene. Part III. Some derivatives of fluorene and phenanthrene, 911.
Aliphatic chemistry of fluorene. Part IV. Preparation and alkylation of some sulphides and sulphones, 917.
Molecular complexes derived from 1,3,6,8-tetranitropyrene, 1017.
Aliphatic chemistry of fluorene. Part V. Spiro-ketones, 1099.
Aliphatic chemistry of fluorene. Part VI. 3,4-Benzofluorene-9-spiro-cyclohexane, 1148.
A note on the cyclization of 3-(2′-naphthyl)-butyric acid, 1227.
See also Anet, F. A. L., 240.
Baxter, J. N. and **Perlin, A. S.** 2,3-*O*-Isopropylidene-L-*erythro*tetruronic acid and -L-erythrose, and the methyl D-*erythro*- and D-*threo*-tetrofuranosides, 2217.
Bayley, C. H. See Gingras, B. A., 712.
Beech, J. A. See Sandler, S., 1455.
Beg, M. A. A. and **Clark, H. C.** Chemistry of the trifluoromethyl group. Part I. Complex formation by phosphines containing the trifluoromethyl group, 119.
Bell, C. M. See Levine, S., 1346.
Bennett, R. M. and **Holmes, O. G.** Electronic states of hydrated vanadium (II) ion, 2319.
Bent, H. A. A mechanism for the inductive effect, 1235.
Berlinguet, L. See Laliberté, R., 1933.
Berse, C., Piché, L., and **Uchiyama, A.** The preparation of L-arginyl dipeptides of asparagine, glutamine, and some basic amino acids, 1946.
Betts, R. H. See Baerg, A. P., 2147.
Biermann, W. J. The relative enthalpies of concentrated potassium hydroxide solutions, 57.
Biermann, W. J. and **Heinrichs, M.** The attack of chromite by sulphuric acid, 1449.
Bishop, C. T. Crystalline *O*-methyl ethers of D-galactitol, 1636.
See also Adams, G. A., 2380.
Bishop, C. T., Blank, F., and **Gardner, P. E.** The cell wall polysaccharides of *Candida albicans*: glucan, mannan, and chitin, 869.
Bishop, C. T. and **Cooper, F. P.** Separation of carbohydrate derivatives by gas–liquid partition chromatography, 388.
Constitution of a glucomannan from jack pine (*Pinus banksiana*, Lamb), 793.
Blackwell, R. Q. See Needleman, S. B., 477.
Blades, A. T. and **Gilderson, P. W.** The hydrogen isotope effect in the pyrolysis of ethyl-1,1,2,2-d_4 acetate, 1401.
The secondary hydrogen isotope effects in the pyrolysis of ethyl-d_5 acetate and ethyl acetate-d_3, 1407.
Kinetics of the thermal decomposition of ethyl propionate, 1412.
Blank, F. See Bishop, C. T., 869.
Bloom, M. See Sandhu, H. S., 493.
Blumenthal, J. L., Sourirajan, S., and **Nobe, K.** Effect of mean pore size on the low-temperature adsorption of nitrogen on alumina, 783.
Boddy, P. J. and **Steacie, E. W. R.** Hydrogen atom abstraction by ethyl-d_5 radicals. Part I, 1576.
Boivin, J.-L. See Gagnon, P. E., 1472.
Boos, W. R. See Manske, R. H., 620.
Bounsall, E. J. and **McBryde, W. A. E.** Determination of trace amounts of silver in galena ores, 1488.
Bourgault, P. L. and **Conway, B. E.** The electrochemical behavior of the nickel oxide electrode. Part II. Quasi-equilibrium behavior, 1557.
Bourns, A. N. See Buncel, E., 2457; Stothers, J. B., 923.
Bowering, W. D. S. and **Timell, T. E.** A chemical synthesis of 4-*O*-methyl-D-glucuronic acid, 311.
Breitman, L. See Orr, R. J., 668.
Bresesti, M. and **Roy, J. C.** Half-lives of the nuclides Au^{195}, Pt^{195m}, and Pt^{197}, 194.
Brinton, R. K. The abstraction of hydrogen atoms from amines and related compounds, 1339.
Brissette, C. and **Sandorfy, C.** Hydrogen bonding in the amine hydrohalides. II. The infrared spectrum from 4000 to 2200 cm^{-1}, 34.
Broida, H. P. and **Golden, S.** Pressure dependence of rotationally perturbed lines in the ultraviolet band spectrum of CN, 1666.
Brown, R. K. See Leggetter, B. E., 1467, 2363; Scherf, G. W. H., 697, 2450.
Brown, R. K. and **Eastham, A. M.** The chemistry of ethylene oxide. VI. The acid-catalyzed reaction of ethylene oxide with ethanol–water mixtures, 2039.
Brownell, H. H. See Casselman, A. A., 1277.

Brownstein, S. The effect of solvents upon equilibria, spectra, and reaction rates, 1590.
The fluorine resonance spectrum of perchloryl fluoride, 1597.
Bruderlein, F., Bruderlein, H., Favre, H., Lapierre, R., and **Lefebvre, Y.** La réaction de Reformatsky appliquée à l'oxo-2 cyclohexane-propionitrile et à des céto-nitriles analogues, 2085.
Bruderlein, H. See Bruderlein, F., 2085.
Bryce, W. A. See Ruzicka, D. J., 827.
Bryce, W. A. and **Ruzicka, D. J.** Reactions of allyl radicals with olefins, 835.
Buckingham, A. D. Chemical shifts in the nuclear magnetic resonance spectra of molecules containing polar groups, 300.
Buncel, E. and **Bourns, A. N.** The mechanism of the carbonyl elimination reaction of benzyl nitrate. Kinetic isotope effects and deuterium exchange, 2457.
Burnell, R. H., Mootoo, B. S., and **Taylor, D. R.** Alkaloids of *Lycopodium fawcettii*. Part II, 1927.
Burns, G. and **Hornig, D. F.** A combined flash photolysis and shock wave method for the study of bromine atom recombination over a wide temperature range, 1702.
Bywater, S. See Worsfold, D. J., 1891.
Caldow, G. L., Van Cleave, A. B., and **Eager, R. L.** The infrared spectra of some uranyl compounds, 772.
Calvert, L. D. See Heyding, R. D., 313.
Campbell, A. N. and **Friesen, J. I.** Conductances of aqueous solutions of sodium hexanoate (sodium caproate) and the limiting conductances of the hexanoate ion, at 25° C and 35° C, 1939.
Campbell, A. N. and **Kartzmark, E. M.** The energy of hydrogen bonding in the system: acetone–chloroform, 652.
Campbell, H. J. and **Edward, J. T.** Ionization of organic compounds in acid. I. Aliphatic ketones, 2109.
Canady, W. J. O—H stretching frequencies for some phenols and their relationships to the thermodynamics of ionization, 1018.
Carmichael, G. See McGreer, D. E., 2410.
Casselman, A. A., Greenhalgh, R., Brownell, H. H., and **Bannard, R. A. B.** Clam poison. I. The paper chromatographic purification of clam poison dihydrochloride, 1277.
Chang, H. S. See Edward, J. T., 1518, 2271.
Charters, P. E. and **Polanyi, J. C.** An improved technique for the observation of infrared chemiluminescence: Resolved infrared emission of OH arising from the system $H + O_2$, 1742.
Charton, M. The application of the Hammett equation to ortho-substituted benzene reaction series, 2493.
Cherneskey, M. and **Bardwell, J.** Surface effects in butane oxidation, 482.

Chevalier, P. and **Sandorfy, C.** Stretching vibrations of the free $\overset{+}{N}H_3$ group, 2524.
Chisholm, M. J. and **Hopkins, C. Y.** 11-Octadecenoic acid and other fatty acids of *Asclepias syriaca* seed oil, 805.
Conjugated fatty acids of tragopogon and calendula seed oils, 2500.
Chubb, F. L. See Frangatos, G., 1021, 1082, 1434.
Chubb, F. L., Frangatos, G., and **Nissenbaum, J.** Some new benzilic acid derivatives, 1231.
Clark, H. C. See Beg, M. A. A., 119.
Coffen, D. L. See Forbes, W. F., 728.
Connor, T. M. See Moodie, R. B., 676.
Conway, B. E. See Bourgault, P., 1557; Lakhanpal, M. L., 199.
Cook, D. The solid–liquid equilibrium between anhydrous magnesium chloride and N,N-dimethylformamide, 2143.
Cooper, F. P. See Bishop, C. T., 388, 793.
Croon, I. and **Timell, T. E.** Distribution of substituents in a partially methylated 4-*O*-methylglucuronoxylan, 720.
Cullen, W. R. Perfluoroalkyl arsenicals. Part I. The preparation of alkyl perfluoroalkyl arsenicals, 439.
Perfluoroalkyl arsenicals. Part II. The preparation and properties of aryl perfluoroalkyl arsenicals, 445.
Cullen, W. R. and **Walker, L. G.** Decarboxylation of dimethyltrifluoroacetoxyarsine, 472.
Curtis, E. J. C. and **Jones, J. K. N.** Some open-chain derivatives of glucose and mannose, 890.
The synthesis of 3-*O*-β-D-xylopyranosyl-D-xylose and the recharacterization of some benzylidene derivatives of D-xylose, 1305.
Cushing, R. L. See Davies, J. A., 1535.
Cvetanović, R. J. Electrophilic character of oxygen atoms, 1678.
See also Vrbaski, T., 1053, 1063.
Cvetanović, R. J. and **Doyle, L. C.** Reaction of oxygen atoms with butadiene, 2187.
Dacey, J. R. See Pritchard, G. O., 182, 319.
Daly, L. H. See de Maine, P. A. D., 1921.
Daneault, G. See Deghenghi, R., 1255.
Daoust, H. See Watters, C., 1087.
Davies, J. A., Friesen, J., and **McIntyre, J. D.** A radiochemical technique for studying range–energy relationships for heavy ions of kev energies in aluminum, 1526.
Davies, J. A., McIntyre, J. D., Cushing, R. L., and **Lounsbury, M.** The range of alkali metal ions of kiloelectron volt energies in aluminum, 1535.
Dearden, J. C. and **Forbes, W. F.** The study of hydrogen bonding and related phenomena by ultraviolet light absorption. Part IV, 896.

The study of hydrogen bonding and related phenomena by ultraviolet light absorption. Part V. Intramolecular hydrogen bonding in anilines and phenols, 1837.
The study of hydrogen bonding and related phenomena by ultraviolet light absorption. Part VI. The effect of steric interactions on the intramolecular hydrogen bond in *o*-nitrophenol, 1852.
Deghenghi, R. See Engel, Ch. R., 452, 1199.
Deghenghi, R. and **Daneault, G.** Orotic acid and its analogues. Part II. On the alkaline rearrangement of 5-carboxymethylidenehydantoin, 1255.
Despault, G. J. G. See Heyding, R. D., 2477.
Diaper, D. G. M. and **Mitchell, D. L.** An improved preparation of ω-hydroxy aliphatic acids and their esters, 1976.
Doyle, L. C. See Cvetanović, R. J., 2187.
Dunell, B. A. See Grant, R. F., 359, 1951, 2395.
Dupré, A. See Georgieff, K. K., 1070.
Dyne, P. J. and **Fletcher, J. W.** Radiation chemistry of cyclohexane. II. Dose rate effects on the formation and destruction of cyclohexane, 851.
Dyne, P. J. and **Jenkinson, W. M.** Radiation chemistry of cyclohexane. I. Isotopic composition of hydrogen evolved from mixtures of C_6D_{12} and C_6H_{12}, 539.
Dyne, P. J. and **Kennedy, J. M.** A detailed study of the Samuel–Magee model for the radiation chemistry of water. Part II. Kinetics of radical reactions in the tracks of densely ionizing particles, 61.
Eager, R. L. See Caldow, G. L., 772.
Eastham, A. M. See Brown, R. K., 2039; Merrall, G. T., 1967.
Edward, J. T. See Campbell, H. J., 2109.
Edward, J. T., Chang, H. S., Yates, K., and **Stewart, R.** Protonation of the amide group. I. The basicities of substituted benzamides, 1518.
Application of the Hammett equation to the hydrolysis of substituted benzamides, 2271.
Edward, J. T. and **Morand, P. F.** Stereochemical studies. I. Configurations of some 4-azacholestanes, 1316.
Stereochemical studies. II. Configurations of some 4-oxacholestanes, 1325.
Edwards, O. E. See Seaton, J. C., 1035.
Edwards, O. E., Nicolson, A., and **Rodger, M. N.** The structure of sandaracopimaric acid, 663.
Eelnurme, I. See Ahmad, A., 2523.
Eisenbraun, A. A. and **Purves, C. B.** Crystalline glyoxylic acid and its sodium–calcium salt, 622.
Elias, L. and **Schiff, H. I.** Absolute rate measurements of O-atom reactions with ethylene and with butane, 1657.
Engel, Ch. R. and **Deghenghi, R.** Steroids and related products. XIII. The synthesis of 6α-fluoro-17α-bromoprogesterone, 452.
Engel, Ch. R., Hoegerle, R.-M., and **Deghenghi, R.** Steroids and related products. XIV. The synthesis of 17α-halogenated 20,21-ketols of the corticoid type, 1199.
Eyring, H. See Fueno, T., 1693.
Fallon, R. J., Tobias, I., Vanderslice, J. T., and **Maisch, W. G.** A possible mechanism for the production of $O_2^*(^3\Sigma_u^-)$ in flames, 743.
Favre, H. See Bruderlein, F., 2085.
Fettis, G. C., Knox, J. H., and **Trotman-Dickenson, A. F.** The transfer reactions of halogen atoms, 1643.
Finlayson, A. J. and **Lee, C. C.** Rearrangement studies with C^{14}. IX. The formolysis of methyl-C^{14}-isopropylcarbinyl *p*-toluenesulphonate, 787.
Fischer, P. H. H. and **McDowell, C. A.** The infrared absorption spectra of urea–hydrocarbon adducts, 187.
Fisher, M. H. and **Massiah, T. F.** Derivatives of *p*-aminosalicylic acid, 172.
Fishman, J. B. See Yaffe, L., 1113.
Fleck, W. E. P., Jones, M. H., Kuntze, R. A., and **McAdie, H. G.** The differential thermal analysis of natural and synthetic hydrates of calcium sulphate, 936.
Flengas, S. N. and **Ingraham, T. R.** Equilibrium decomposition pressures of K_2TiCl_6, 813.
Fletcher, J. W. See Dyne, P. J., 851.
Flowers, R. H., Gillespie, R. J., and **Robinson, E. A.** The sulphuric acid solvent system. Part I. Acid–base reactions, 1363.
Forbes, W. F. Light absorption studies. Part XVII. The ultraviolet absorption spectra of chlorobenzenes, 1104.
See also Dearden, J. C., 896, 1837, 1852.
Forbes, W. F., Knight, A. R., and **Coffen, D. L.** The study of hydrogen bonding and related phenomena by ultraviolet light absorption. Part III. The strength of the dimeric hydrogen bond in substituted benzoic acids as a measure of electronic and steric interactions, 728.
Ford, H. Seven mechanisms in the photolysis of NO_2 between 3100 and 3700 Å, 1780.
Fosdick, L. S. See Needleman, S. B., 477.
Frangatos, G. See Chubb, F. L., 1231.
Frangatos, G., Kohan, G., and **Chubb, F. L.** The synthesis of 10-substituted phenoxazines, 1021.
The synthesis of some basic esters of 3,4,5-trimethoxybenzoic acid, 1082.
The synthesis of some indolylalkylaminoalcohols, 1434.
Fraser, R. R. Long-range coupling constants in the N.M.R. spectra of olefines, 549.
Chemical shifts in the N.M.R. spectra of substituted xylenes, 2226.
Freeman, G. R. The radiolysis of cyclohexane. II. Cyclohexane–cyclohexene solutions and pure cyclohexene, 1043.

Friesen, J. See Davies, J. A., 1526.
Friesen, J. I. See Campbell, A. N., 1939.
Frost, D. C. and **McDowell, C. A.** The ionization and dissociation of some halogen molecules by electron impact, 407.
Fueno, T., Eyring, H., and **Ree, T.** Three-body recombination of gaseous ions, 1693.
Funt, B. L. and **Pasika, W.** Radical termination mechanisms in bulk polymerization, 1865.
Gagnon, P. E., Boivin, J.-L., and **House, G. W.** Syntheses of polyurethanes from hydroxy-terminated polyesters, 1472.
Gardner, J. A. F., MacDonald, B. F., and **MacLean, H.** The polyoxyphenols of western red cedar (*Thuja plicata* Donn). II. Degradation studies on plicatic acid, a possible lignan acid, 2387.
Gardner, P. E. See Bishop, C. T., 869.
Garmaise, D. L. See McKay, A. F., 343, 2042.
Garmaise, D. L. and **Gelblum, S.** Aminonitriles. II. Some derivatives of 2-amino-3-cyanoindene, 1639.
Garvin, D., Gwyn, P. P., and **Moskowitz, J. W.** The product emitter diffusion flame: The reaction of nitric oxide with oxygen atoms, 1795.
Gaudry, R. See Marshall, D. J., 1495.
Gelblum, S. See Garmaise, D. L., 1639; McKay, A. F., 343, 2042.
Georgieff, K. K. and **Dupré, A.** Cis and trans 1-acetoxy-1,3-butadiene: Physical and chemical properties, infrared and ultraviolet spectra, 1070.
Geza, K. See Frangatos, G., 1434.
Giacometti, G., Okabe, H., Price, S. J., and **Steacie, E. W. R.** The photolysis and the fluorescence of perfluoro diethyl ketone, 104.
Giguère, P. A. and **Savoie, R.** Les spectres infrarouges de l'acide sulfurique et des oléums, 2467.
Gilderson, P. W. See Blades, A. T., 1401, 1407, 1412.
Gillespie, R. J. Electron correlation and molecular shape, 818.
See also Flowers, R. H., 1363.
Gillespie, R. J. and **White, R. F. M.** Proton magnetic resonance shifts for the H_2O–SO_3 system and some electrolyte solutions in sulphuric acid, 1371.
Gingras, B. A., Hornal, R. W., and **Bayley, C. H.** The preparation of some thiosemicarbazones and their copper complexes. Part I, 712.
Glew, D. N. The gas hydrate of bromochlorodifluoromethane, 208.
Golden, S. See Broida, H. P., 1666.
Goldman, G. K. See Rao, C. N. R., 2508.
Goldman, G. K., Lehman, H., and **Rao, C. N. R.** Electrical effects on the C–O–C asymmetrical stretching vibration in anisoles, 171.
Goldschmid, H. R. and **Perlin, A. S.** Hydrogenolysis of carbohydrates. IX. Formation of 2,6-anhydro-β-D-fructofuranose and ethyl α- and β-D-fructofuranoside from sucrose, 2178.
Scission of sterically hindered *vic*-diols, 2280.
Gorin, P. A. J. Hydrogenolysis of carbohydrates. VIII. Comparative studies on methyl glycopyranosides, 641.
Goring, D. A. I. See Gupta, P. R., 248, 259, 270.
Graham, G. D. and **Maass, O.** A method for adiabatic compression of gases under controlled conditions, 2482.
Grant, D. W. See Armstrong, W. A., 845.
Grant, R. F. and **Dunell, B. A.** Proton magnetic resonance absorption in the C-form of stearic acid, 359.
Proton magnetic resonance absorption in anhydrous potassium stearate, 1951.
Proton magnetic resonance absorption in anhydrous sodium stearate, 2395.
Gray, A. H. See Barclay, L. R. C., 94.
Green, B. C. See Mitchell, F. W., 689.
Greenhalgh, R. See Casselman, A. A., 1277.
Gunning, H. E. See Sherwood, A. G., 466; Stock, R. L., 2295.
Gupta, P. R. and **Goring, D. A. I.** Physicochemical studies of alkali lignins. I. Preparation and properties of fractions, 248.
Physicochemical studies of alkali lignins. III. Size and shape of the macromolecule, 270.
Gupta, P. R., Robertson, R. F., and **Goring, D. A. I.** Physicochemical studies of alkali lignins. II. Ultracentrifugal sedimentation analysis, 259.
Gwyn, P. P. See Garvin, D., 1795.
Gyaw, M. O. and **Timell, T. E.** Constitution of a glucomannan from the wood of eastern white pine (*Pinus strobus* L.), 1957.
Haggart, C. and **Winkler, C. A.** The reactions of active nitrogen with cyanogen and CN radicals, 329.
Hall, N. D. See Barclay, L. R. C., 94.
Hardy, J. R. See Ingalls, R. B., 1734.
Harrison, A. G. and **Lossing, F. P.** Free radicals by mass spectrometry. XIX. Primary steps in the mercury-photosensitized decomposition of formaldehyde, 544.
Harrison, W. A. See MacLean, D. B., 528.
Harteck, P., Reeves, R. R., and **Mannella, G.** Surface-catalyzed atom recombinations that produce excited molecules, 1648.
Hartman, S. and **Robertson, R. E.** Nucleophilic displacement of methyl sulphonic esters by hydroxide ion in water, 2033.
Hayes, K. E. The role of reaction products in the silver-catalyzed oxidation of ethylene, 2256.
Hayward, L. D. See Jackson, M., 496; McKeown, G. G., 174; Wright, I. G., 316.

Heacock, R. A. and **Scott, B. D.** The chemistry of the "aminochromes". Part III. On the structures of "iodoöxoadrenochrome" and iodoepinochrome, 508.
The chemistry of the "aminochromes". Part IV. Some new aminochromes and their derivatives, 516.
Heinrichs, M. See Biermann, W. J., 1449.
Henchman, M., Urch, D., and **Wolfgang, R.** High energy reactions of atomic hydrogen, 1722.
Henderson, J. F. and **Steacie, E. W. R.** The photolysis of deuterated acetone and of deuterated acetone–hydrogen mixtures, 2161.
Heyding, R. D. and **Calvert, L. D.** Arsenides of the transition metals. III. A note on the higher arsenides of iron, cobalt, and nickel, 313.
Heyding, R. D. and **Despault, G. J. G.** The copper/arsenic system and the copper arsenide minerals, 2477.
Heyding, R. D., Ironside, R., Norris, A. R., and **Prysiazniuk, R. Y.** Acid activation of montmorillonite, 1003.
Hilchie, J. W. See Barclay, L. R. C., 94.
Hildebrandt, A. F. See Kaplan, J., 1688.
Hochstrasser, R. M. The luminescence of complex molecules in relation to the internal conversion of excitation energy. Part II. N-Heteroaromatics, 233.
Hodgson, C. and **McIntosh, R.** The freezing of water and benzene in porous Vycor glass, 958.
Hoegerle, R.-M. See Engel, Ch. R., 1199.
Holmes, O. G. See Bennett, R. M., 2319.
Hopkins, C. Y. See Chisholm, M. J., 805, 2500.
Hornal, R. W. See Gingras, B. A., 712.
Hornig, D. F. See Burns, G., 1702.
House, G. W. See Gagnon, P. E., 1472.
Hurtubise, F. G. See Andrews, D. A., 1381.
Hyne, J. B. Hydrogen bonding in diastereoisomeric α-β aminoalcohols: a reinvestigation of the ephedrines by N.M.R., 125.
Ingalls, R. B. and **Hardy, J. R.** The reactions of hydrogen atoms with some organic liquids, 1734.
Ingold, K. U. The infrared frequencies and intensities of the hydroxyl group in 2,6-di-*tert*-butyl-4-substituted phenols, 1092.
Ingraham, T. R. See Flengas, S. N., 813; Warner, N. A., 2196.
Ironside, R. See Heyding, R. D., 1003.
Iverach, G. G. See Ayer, W. A., 1823.
Iwakura, Y. and **Okada, H.** The kinetics of the tertiary-amine-catalyzed reaction of organic isocyanates with thiols, 2418.
Iyengar, Y. Calculation of heats of solution in saturated mixed electrolytes, 161.
Jackson, M. and **Hayward, L. D.** The action of pyridine on the dinitrate esters of 1,4;3,6-dianhydrohexitols, 496.
Jenkinson, W. M. See Dyne, P. J., 539.
Jeun, S. K. and **Lu, B. C.-Y.** Heat of mixing of carbon tetrachloride with furfural, 742.
Jones, J. K. N. See Abercrombie, M. J., 308, 1617, 1999, 2007; Curtis, E. J. C., 890, 1305.
Jones, J. K. N., Perry, M. B., and **Turner, J. C.** The reaction of sulphuryl chloride with glycosides and sugar alcohols. Part II, 1122.
Jones, J. K. N. and **Reid, P. E.** The synthesis of 2-*O*-β-D-glucopyranosyl-D-xylose, 944.
Jones, J. K. N. and **Sephton, H. H.** Synthesis of sugars from smaller fragments. Part XII. Synthesis of D-glycero-D-altro-, L-glycero-L-galacto-, D-glycero-L-gluco-, and D-glycero-L-galacto-octulose, 753.
Jones, J. K. N. and **Wall, R. A.** The separation of sugars on ion-exchange resins. Part II. Separation of monosaccharides, 2290.
Jones, J. K. N., Wall, R. A., and (*in part*) **Pittet, A. O.** The separation of sugars on ion-exchange resins. Part I. Separation of oligosaccharides, 2285.
Jones, M. H. See Fleck, W. E. P., 936.
Jones, M. H., Martius, U., and **Thorne, M. P.** The nature of polymerization catalysts prepared from metal alkyls and titanium halides, 2303.
Kaplan, J., Schade, W. J., Barth, C. A., and **Hildebrandt, A. F.** Atomic reactions in the upper atmosphere, 1688.
Kartzmark, E. M. See Campbell, A. N., 652.
Kelly, R. Solid–liquid reactions. Part I. The determination of solid–liquid reaction mechanisms, 1209.
Solid–liquid reactions. Part II. Solid–liquid reactions amongst the calcium aluminates and sulphoaluminates, 1218.
Kelly, R. and **Winkler, C. A.** Catalyzed recombination of nitrogen atoms, and the possible presence of a second active species in active nitrogen, 2514.
Kennedy, J. M. See Dyne, P. J., 61.
Kertes, A. S. and **Kertes, V.** Solvent extraction of mineral acids. Part III. Solute–solvent interaction in the system hydrobromic acid – water – tri-*n*-butyl phosphate, 612.
Kertes, V. See Kertes, A. S., 612.
Ketcheson, B. G. and **Taurins, A.** Steroids. Part I. The synthesis of some heterocyclic steroid derivatives, 972.
Steroids. Part II. 6-Amino steroids, 981.
Kimbell, G. H. and **Le Roy, D. J.** The role of Hg 6^3P_0 atoms in mercury photosensitization. I. Reactions in the presence of nitrogen, 1714.
King, G. W. Electronic potential surfaces of acetylene in LCAO/MO approximation, 365.

Knight, A. R. See Forbes, W. F., 728.
Knox, J. H. See Fettis, G. C., 1643.
Kohan, G. See Frangatos, G., 1021, 1082.
Koller, A. E. See Levi, I., 1135.
Krässig, H. See Andrews, D. A., 1381.
Kreling, M.-E. See McKay, A. F., 1819.
Krishnamachari, S. L. N. G. See Nicholls, R. W., 1652.
Kuntze, R. A. See Fleck, W. E. P., 936.
Kutschke, K. O. See Price, S. J. W., 2128; Riem, R. H., 2332.
Laflamme, G. See Levi, I., 1135.
Laidler, K. J. See Lovering, E. G., 2367; Wojciechowski, B. W., 1027.
Lakhanpal, M. L. and **Conway, B. E.** A method of integration of the Gibbs–Duhem equation when activities of a solute are required from those of the solvent, 199.
Laliberté, R. and **Berlinguet, L.** Synthèses d'acides aminobutyriques. 1. Acides alkylamino-2 amino-4 butyriques, 1933.
Lang, A. R. G. and **Mason, S. G.** Tritium exchange between cellulose and water: Accessibility measurements and effects of cyclic drying, 373.
Lapierre, R. See Bruderlein, F., 2085.
Latrémouille, G. A. See Merrall, G. T., 1967.
Lee, C. C. See Finlayson, A. J., 787.
Lee, C. C. and **Lee, D. G.** Rearrangement studies with C^{14}. X. Ethanol-2-C^{14} from the irradiation of ethanol-1-C^{14} with Co^{60} gamma rays, 2315.
Lee, D. G. See Lee, C. C., 2315.
Lee, J. K., Musgrave, B., and **Rowland, F. S.** Hot atom reactions and radiation-induced effects in the reactions of recoil tritium with cyclopropane, 1756.
Lees, J. See Sandhu, H. S., 493.
Lefebvre, Y. See Bruderlein, F., 2085.
Leffek, K. T., Llewellyn, J. A., and **Robertson, R. E.** Some deuterium kinetic isotope effects. II. α-Deuterium effects in the water solvolysis of some alkyl compounds, 1505.
Some deuterium kinetic isotope effects. IV. β-Deuterium effects in water solvolysis of ethyl, isopropyl, and *tert*-butyl compounds, 2171.
Leggetter, B. E. and **Brown, R. K.** The structure of monobrominated ethyl indole-3-carboxylate and the preparation of 7-bromoindole, 1467.
Reduction of monohalogenated nitrobenzenes with hydrazine and Raney nickel. A convenient preparation of halogenated anilines, 2363.
Lehman, H. See Goldman, G. K., 171.
Lemieux, R. U. and **Barrette, J. P.** A chromatographic analysis of the product from the tritosylation of sucrose: Crystalline 6,6′-di-*O*-tosylsucrose, 656.
Lemieux, R. U. and **McInnes, A. G.** The preferential tosylation of the *endo*-5-hydroxyl group of 1,4;3,6-dianhydro-D-glucitol, 136.
Le Roy, D. J. See Kimbell, G. H., 1714.
Levi, I., Koller, A. E., Laflamme, G., and **Weed, J. W. R.** N-Dichloroacetyl derivatives of serine and threonine and of their esters and sodium salts, 1135.
Levine, S. and **Bell, G. M.** Interaction of two parallel plates in a binary asymmetrical electrolyte. I. Univalent coagulating ion, 1346.
Lewis, M. P. See Rao, C. N. R., 2359.
Lister, M. W. and **Rosenblum, P.** Some equilibrium constants of transition metal halides, 1827.
Lister, M. W. and **Yoshino, Y.** Complex cobalt periodates, 45.
Complex manganese periodates, 1291.
The oxidation of manganate by periodate, 2342.
Llewellyn, J. A. See Leffek, K. T., 1505, 2171.
Llewellyn, J. A., Robertson, R. E., and **Scott, J. M. W.** Some deuterium isotope effects. I. Water solvolysis of methyl-d_3 esters, 222.
Lock, M. V. See Abercrombie, M. J., 1617.
Lossing, F. P. See Harrison, A. G., 544.
Lounsbury, M. See Davies, J. A., 1535.
Lovering, E. G. and **Laidler, K. J.** A system of molecular thermochemistry for organic gases and liquids. Part II. Extension to compounds containing sulphur and oxygen, 2367.
Low, M. J. D. Rates of adsorption of hydrogen on palladium and on rhodium, 588.
Lu, B. C.-Y. See Jeun, S. K., 742.
McAdie, H. G. See Fleck, W. E. P., 936.
McBryde, W. A. E. See Bounsall, E. J., 1488.
McCaldin, D. J. A color test for certain piperidine and pyrrolidine alkaloids, 1229.
MacDonald, B. F. See Gardner, J. A. F., 2387.
McDowell, C. A. See Fischer, P. H. H., 187; Frost, D. C., 407; Matsunaga, Y., 724, 1158, 1167.
McDowell, C. A. and **Rowlands, J. R.** The electron spin resonance spectra of the positive and negative ions of diphenylene, 503.
McGreer, D. E. Spirohexane, 1638.
McGreer, D. E., Wai, W., and **Carmichael, G.** Pyrazolines. Part II, 2410.
McInnes, A. G. See Lemieux, R. U., 136.
McIntosh, R. See Hodgson, C., 958.
McIntyre, J. D. See Davies, J. A., 1526, 1535.

McKay, A. F., Garmaise, D. L., Paris, G. Y., and **Gelblum, S.** Bacteriostats. III. Oxyamines and their derivatives, 343.
McKay, A. F., Garmaise, D. L., Paris, G. Y., Gelblum, S., and **Ranz, R. J.** The preparation of substituted thionocarbamates, 2042.
McKay, A. F. and **Kreling, M.-E.** Nitration of bicyclic guanidines, 1819.
McKeown, G. G. and **Hayward, L. D.** 6-*O*-Ethyl-D-galactose, 174.
McKillican, M. E. A survey of amino acid content of the uredospores of some races of wheat rust (*Puccinia graminis*), 244.
MacLean, D. B., Song, W.-R., and **Harrison, W. A.** Lycopodium alkaloids. IX. Cyclized products from α- and β-cyanobromolycopodine, 528.
MacLean, H. See Gardner, J. A. F., 2387.
McLean, S. Nuclear magnetic resonance spectra of some model indoline derivatives, 2278.
McLean, S., Palmer, K., and **Marion, L.** Isolation and structure of a new alkaloid: aspidocarpine, 1547.
Maass, O. See Graham, G. D., 2482; Miller, C. G., 1606.
de Maine, M. M. See de Maine, P. A. D., 1921.
de Maine, P. A. D. A proposed cryoscopic method for determining the heat of complex formation for a reaction, $X + Y \rightleftharpoons Z$, 1635.
de Maine, P. A. D., Daly, L. H., and **de Maine, M. M.** Experimental studies of solution processes. VI. Effect of solvent on infrared absorption spectra, 1921.
de Maine, P. A. D. and **Santiago, P. J.** Iodine complexes in inert solvents. XI. Cryoscopic study of the iodine–naphthalene complex dissolved in cyclohexane, 157.
Maisch, W. G. See Fallon, R. J., 743.
Mannella, G. See Harteck, P., 1648.
Manske, R. H. and **Boos, W. R.** 1,6-Bis(γ-carbethoxypropyl)-2,3,7,8-dibenzopyrocoll. A by-product in the preparation of γ-(3-indolyl)butyric acid, 620.
Manton, J. E. and **Tickner, A. W.** The decomposition of methane by low-energy electrons, 858.
Marion, L. See McLean, S., 1547; Robertson, A. V., 294, 396; Seaton, J. C., 1035; Skarič, V., 2433.
Marko, A. M. See Abramovitch, R. A., 131.
Marshall, D. J. and **Gaudry, R.** 17α-Halogenated progesterones: orally-active progestins, 1495.
Martius, U. See Jones, M. H., 2303.
Mason, S. G. See Lang, A. R. G., 373; Rabinovitch, W., 1881; Sepall, O., 2024.
Massiah, T. F. See Fisher, M. H., 172.
Mathews, T. See Stewart, R., 602.
Matsunaga, Y. Electron spin resonance absorption of boro-ultramarine, 309.
Magnetic properties of mesonaphthodianthrene, 323.
Magnetic moment of Ni^{2+} ion in $(Ph_3P)_2NiBr_2(PhBr)_2$, 621.
The electron spin resonance absorption spectra of semiquinone ions. Part III. Free radical salts of quinhydrones, 1172.
Matsunaga, Y. and **McDowell, C. A.** Electron spin resonance absorption of diphenylpicrylhydrazyl – zinc oxide mixtures, 724.
The electron spin resonance absorption spectra of semiquinone ions. Part I. The hyperfine splitting due to alkoxy groups, 1158.
The electron spin resonance absorption spectra of semiquinone ions. Part II. The hyperfine splitting due to amino groups, 1167.
de Mayo, P. and **Stoessl, A.** Griseoviridin: The C_6 fragment, 950.
Meadus, F. W. See Sirianni, A. F., 53.
Meredith, C. C. and **Wright, G. F.** The electric moments of supposedly symmetrical cyclic substances, 1177.
Merrall, G. T., Latrémouille, G. A., and **Eastham, A. M.** Cationic polymerization of ethylene oxide. IV. The propagation reactions, 1967.
Mian, A. J. and **Timell, T. E.** Isolation and characterization of a cellulose from the inner bark of white birch (*Betula papyrifera*), 1191.
Isolation and properties of a glucomannan from the wood of red maple (*Acer rubrum* L.), 1511.
Miller, C. G. and **Maass, O.** Determination of dielectric constant in binary organic systems, 1606.
Miller, G. H. See Pritchard, G. O., 319.
Mironov, K. E. On the existence of ternary compounds in the system NH_3–H_2O_2–H_2O, 2269.
Mitchell, D. L. See Diaper, D. G. M., 1976.
Mitchell, F. W., Green, B. C., and **Spinks, J. W. T.** Electron spin resonance studies of the radiation-induced addition of HBr to C_2H_4 in the solid state, 689.
Moodie, R. B., Connor, T. M., and **Stewart, R.** An N.M.R. study of electron release by alkyl and alkoxy groups in various solvents, 626.
Mootoo, B. S. See Burnell, R. H., 1927.
Morand, P. F. See Edward, J. T., 1316, 1325.
Moskowitz, J. W. See Garvin, D., 1795.
Muchowski, J. M. See Abramovitch, R. A., 554, 557; Anet, F. A. L., 2526.
Mueller, W. A. Theory of the polarization curve technique for studying corrosion and electrochemical protection, 576.
Musgrave, B. See Lee, J. K., 1756.
Nair, G. V. and **von Rudloff, E.** The chemical composition of the heartwood extractives of *Larix lyallii* Parl., 177.
Isolation of hyperin from red-osier dogwood (*Cornus stolonifera* Michx.), 2531.

Nair, M. D. See Seaton, J. C., 1035.
Needleman, S. B., Blackwell, R. Q., and **Fosdick, L. S.** Amino acid distribution in biologically active peptides, 477.
Nicholls, R. W. and **Krishnamachari, S. L. N. G.** On the excitation of the emission spectrum of NCO in solid matrices condensed at 4° K, 1652.
Nicolson, A. See Edwards, O. E., 663.
Nissenbaum, J. See Chubb, F. L., 1231.
Nobe, K. See Blumenthal, J. L., 783.
Norris, A. R. See Heyding, R. D., 1003.
Norrish, R. G. W. See Basco, N., 1769.
Notation, A. D. See Abramovitch, R. A., 624, 761, 1445, 2152.
O'Donnell, J. P. See Rosenthal, A., 457.
Okabe, H. See Giacometti, G., 104.
Okada, H. See Iwakura, Y., 2418.
Olah, G. A. and **Oswald, A. A.** Organo arsenic compounds. I. N,N-Dialkyl amidodichloroarsenites and N-alkyl imidochloroarsenites, 1428.
Organo arsenic compounds. II. N,N-Dialkyl amidodifluoroarsenites and N-alkyl imidofluoroarsenites, 1431.
Organophosphorus compounds. VIII. O-Alkyl, O'-aryl phosphorofluoridothioates and O-aryl N-alkyl phosphoramidofluoridothioates, 2053.
Önol, N. See Talât-Erben, M., 1154.
Orr, R. J. and **Breitman, L.** Molecular areas of soaps at the surface of latex particles, 668.
Oswald, A. A. See Olah, G. A., 1428, 1431, 2053.
Painter, T. J. The polysaccharides of *Furcellaria fastigiata*. I. Isolation and partial mercaptolysis of a gel-fraction, 112.
Palmer, K. See McLean, S., 1547.
Paris, G. Y. See McKay, A. F., 343, 2042.
Parrish, F. W., Perlin, A. S., and **Reese, E. T.** Selective enzymolysis of poly-β-D-glucans, and the structure of the polymers, 2094.
Pasika, W. See Funt, B. L., 1865.
Pepper, J. M. and **Siddiqueullah, M.** Cellulose column chromatographic separation of lignin oxidation products, 2324.
Perlin, A. S. See Baxter, J. N., 2217; Goldschmid, H. R., 2178, 2280; Parrish, F. W., 2094.
Perry, B. J. See Reesor, J. B., 1416.
Perry, M. B. See Abercrombie, M. J., 1617, 2007; Antia, N. J., 1917; Jones, J. K. N., 1122.
Phillips, L. F. and **Sugden, T. M.** Some observations on the radiative combination of atomic hydrogen with atomic halogens in burner flames, 1804.
Piché, L. See Berse, C., 1946.
Piette, L. H. See Sunners, B., 681.
Pittet, A. O. See Jones, J. K. N., 2285.
Polanyi, J. C. See Charters, P. E., 1742.
Pouli, D. and **Smith, W. MacF.** The kinetics of the formation of the mono–fluoro complex of iron (III) in aqueous solution, 567.
Price, S. J. See Giacometti, G., 104.
Price, S. J. W. and **Kutschke, K. O.** The reactions of perfluoroethyl radicals with hydrogen and methane, 2128.
Pritchard, G. O. and **Dacey, J. R.** The activation energy for the recombination of trifluoromethyl radicals, 182.
Pritchard, G. O., Pritchard, H. O., Miller, G. H., and **Dacey, J. R.** A test of transition state theory, 319.
Pritchard, H. O. See Pritchard, G. O., 319.
Prysiazniuk, R. Y. See Heyding, R. D., 1003.
Puddington, I. E. See Sirianni, A. F., 53; Smith, H. M., 1911.
Purves, C. B. See Adamek, E. G., 2425; Eisenbraun, A. A., 622.
Rabinovitch, W., Robertson, R. F., and **Mason, S. G.** Relaxation of surface pressure and collapse of unimolecular films of stearic acid, 1881.
Ranz, R. J. See McKay, A. F., 2042.
Rao, C. N. R. See Goldman, G. K., 171.
Rao, C. N. R., Goldman, G. K., and **Balasubramanian, A.** Structural and solvent effects on the $n \rightarrow \pi^*(^1U \leftarrow {}^1A)$ transitions in aliphatic carbonyl derivatives: evidence for hyperconjugation in the electronically excited states of molecules, 2508.
Rao, C. N. R., Yoganarasimhan, S. R., and **Lewis, M. P.** Exothermic reactions due to annealing of defects in oxide lattices: Study of the decomposition of carbonates, 2359.
Ree, T. See Fueno, T., 1693.
Reese, E. T. See Parrish, F. W., 2094.
Reesor, J. B., Perry, B. J., and **Sherlock, E.** The synthesis of highly radioactive isopropyl methylphosphonofluoridate (sarin) containing P^{32} as tracer element, 1416.
Reeves, L. W. A study of the dimer of ethylene platinous chloride by proton magnetic resonance, 736.
Nuclear shielding parameters for protons in strong hydrogen bonds. I. Orthohydroxy azo compounds, 748.
Reeves, L. W., Allan, E. A., and **Strømme, K. O.** Nuclear shielding parameters for protons in hydrogen bonds. II. Correlation of chemical shifts in intramolecular hydrogen bonds with infrared stretching frequencies, 1249.

Reeves, L. W. and **Strømme, K. O.** Studies of rates of conversion and populations of various conformations of saturated ring compounds by N.M.R. I. Chlorocyclohexane and bromocyclohexane, 1241.
Reeves, R. R. See Harteck, P., 1648.
Reid, P. E. See Jones, J. K. N., 944.
Riem, R. H. and **Kutschke, K. O.** Photolysis of azoisopropane, 2332.
Rinfret, M. See Watters, C., 1087.
Rivest, R. See Archambault, J., 1331.
Robertson, A. V. and **Marion, L.** The biogenesis of alkaloids. XXIV. The role of citric acid in the biogenesis of hyoscyamine, 294.
The biogenesis of alkaloids. XXV. The role of hygric acid in the biogenesis of stachydrine, 396.
Robertson, R. E. See Hartman, S., 2033; Leffek, K. T., 1505, 2171; Llewellyn, J. A., 222.
Robertson, R. F. See Gupta, P. R., 259; Rabinovitch, W., 1881.
Robinson, E. A. See Flowers, R. H., 1363.
Robinson, J. R. Diphenylcyanamide derivatives. IV. 1,1-Bis(4-chlorophenyl)-urea, 1396.
Robson, J. H. and **Wright, G. F.** The mechanism of organomercurial oxidation by mercuric salts, 1. The autooxidation of organomercuric salts, 21.
Rodger, M. N. See Edwards, O. E., 663.
Rosenblum, P. See Lister, M. W., 1827.
Rosenthal, A. The reaction of the *O*- and *N*-methyl derivatives of aromatic ketoximes with carbon monoxide and hydrogen, 2025.
Rosenthal, A. and **O'Donnell, J. P.** Reaction of *syn*-benzaldoxime with carbon monoxide and hydrogen to yield substituted ureas, 457.
Rosenthal, A. and **Zaionchkovsky, A.** The condensation of glyoxal with *p*-cresol, 2277.
Rowland, F. S. See Lee, J. K., 1756.
Rowlands, J. R. See McDowell, C. A., 503.
Roy, J. C. See Bresesti, M., 194.
von Rudloff, E. The separation of some terpenoid compounds by gas–liquid chromatography, 631.
See also Nair, G. V., 177, 2531.
Russell, K. E. The preparation of cyclic peroxides and their decomposition in solution, 1600.
Ruzicka, D. J. See Bryce, W. A., 835.
Ruzicka, D. J. and **Bryce, W. A.** The pyrolysis of diallyl (1,5-hexadiene), 827.
Ryan, D. E. The determination of zirconium with benzoylphenylhydroxylamine, 2488.
Sakamoto, K. See Yamaguchi, G., 1395.
Sandhu, H. S., Lees, J., and **Bloom, M.** Removal of oxygen from methane and the use of nuclear spin relaxation to measure oxygen concentration, 493.
Sandler, S. and **Beech, J. A.** Quantitative analysis of combustion products by gas chromatography. The oxidation of a rich *n*-pentane–air mixture in a flow system, 1455.
Sandorfy, C. See Brissette, C., 34; Chevalier, P., 2524; Sauvageau, P., 1901.
Santiago, P. J. See de Maine, P. A. D., 157.
Santry, D. C. and **Yaffe, L.** Absolute thermal neutron fission yields of U^{233}, 421.
The yield of Ba^{140} in the thermal neutron fission of U^{235}, 464.
Sauvageau, P. and **Sandorfy, C.** Hydrogen bonding in the amine hydrohalides. III. Near-infrared spectra of aliphatic amine hydrohalides, 1901.
Savoie, R. See Giguère, P. A., 2467.
Schade, W. J. See Kaplan, J., 1688.
Schaefer, T. and **Schneider, W. G.** Solvent effects as an aid in the analysis of the proton magnetic resonance spectrum of vinyl bromide, 2066.
Scherf, G. W. H. and **Brown, R. K.** Potassium derivatives of fluorene as intermediates in the preparation of C_9-substituted fluorenes. I. The preparation of 9-fluorenyl potassium and the infrared spectra of fluorene and some C_9-substituted fluorenes, 697.
Potassium derivatives of fluorene as intermediates in the preparation of C_9-substituted fluorenes. II. Comparative reactivities of the alkali metals, lithium, sodium, and potassium, with fluorene in glycol dimethyl ether, glycol diethyl ether, tetrahydrofuran, and dioxane, 2450.
Schiff, H. I. See Elias, L., 1657.
Schneider, W. G. See Schaefer, T., 2066; Sunners, B., 681; Taurins, A., 1237.
Scott, B. D. See Heacock, R. A., 508, 516.
Scott, J. M. W. The Orton rearrangement in aprotic solvents. Some observations on the reactions of *p*-substituted N-bromoacylanilides in chlorobenzene and trichloroacetic acid, 2441.
See also Llewellyn, J. A., 222.
Seaton, J. C., Nair, M. D., Edwards, O. E., and **Marion, L.** The structure and stereoisomerism of three mitragyna alkaloids, 1035.
Secco, E. A. Decomposition of zinc oxide, 596.
Sehon, A. H. See Back, M. H., 1076, 1261, 1271.
Seng, G. C. See Abramovitch, R. A., 624, 761.
Sepall, O. and **Mason, S. G.** Vapor/liquid partition of tritium in tritiated water, 2024.
Sephton, H. H. See Jones, J. K. N., 753.
Sherlock, E. See Reesor, J. B., 1416.
Sherwood, A. G. and **Gunning, H. E.** The primary process in the mercury-6($^3P_1$)-photosensitized polymerization of acetylene, 466.
Siddiqueullah, M. See Pepper, J. M., 2324.
Siddiqui, I. R. and **Adams, G. A.** 3,5-Di-*O*-methyl-D-galactose, a new methylated sugar from a fully methylated polysaccharide of *Gibberella fujikuroi* (*Fusarium moniliforme*), 2029.

Siegelman, I. and **Sorum, C. H.** Phase equilibrium relationships in the binary system methyl ethyl ketone – water, 2015.
Simon, Z. About the primary act of photochemical decomposition reactions of monosubstituted cobaltihexamine ions, 2373.
Sirianni, A. F., Meadus, F. W., and **Puddington, I. E.** Some properties of silica dispersions, 53.
Skarić, V. and **Marion, L.** Reactions of oxodelcosine and interrelation of delcosine and delsoline, 2433.
Smith, D. M. See Bartlet, J. C., 2057.
Smith, H. M. and **Puddington, I. E.** Spherical agglomeration of barium sulphate, 1911.
Smith, W. MacF. See Pouli, D., 567.
Somasekhara, S. See Anet, R., 746.
Song, W.-R. See MacLean, D. B., 528.
Sorum, C. H. See Siegelman, I., 2015.
Sourirajan, S. See Blumenthal, J. L., 783.
Sourirajan, S. and **Accomazzo, M. A.** Catalytic oxidation of carbon monoxide present in low concentrations, 1990.
Spenser, I. D. See Ahmad, A., 1625, 2523.
Spinks, J. W. T. See Mitchell, F. W., 689; Woods, R. J., 77.
Stairs, R. A. Stoichiometry of the reaction of chromyl chloride with cyclohexene, 2028.
Steacie, E. W. R. See Boddy, P. J., 1576; Giacometti, G., 104; Henderson, J. F., 2161.
Stewart, R. See Edward, J. T., 1518, 2271; Moodie, R. B., 626.
Stewart, R. and **Mathews, T.** The acidity functions H_0 and $J_0(H_R)$ for the system formic acid – water, 602.
Stewart, R. and **Van der Linden, R.** The acidity of some aromatic fluoro alcohols and ketones, 399.
The mechanisms of permanganate oxidation. VI. The oxidation of cyanide ion, 2237.
Stock, R. L. and **Gunning, H. E.** Primary quantum efficiencies in the reaction of cyclopentane with mercury $6(^3P_1)$ atoms, 2295.
Stoessl, A. See de Mayo, P., 950.
Stoodley, R. J. See Abercrombie, M. J., 1617.
Stothers, J. B. and **Bourns, A. N.** Carbon-13 kinetic isotope effects in the solvolysis of 1-bromo-1-phenylethane, 923.
Strømme, K. O. See Reeves, L. W., 1241, 1249.
Sugden, T. M. See Phillips, L. F., 1804.
Sunners, B., Piette, L. H., and **Schneider, W. G.** Proton magnetic resonance measurements of formamide, 681.
Symposium on some fundamental aspects of atomic reactions, 1643.
Talât-Erben, M. and **Önol, N.** The reaction of 2-cyano-2-propyl free radicals with oxygen. 2-Cyano-2-propyl hydroperoxide, 1154.
Taurins, A. See Ketcheson, B. G., 972, 981; Waid, T. H., 987, 1983.
Taurins, A. and **Schneider, W. G.** Thiazoles. IV. Proton magnetic resonance spectra of thiazole and its methyl derivatives, 1237.
Taylor, D. R. See Burnell, R. H., 1927.
Thorn, G. D. Absorption spectra of 2,5-dimercapto-1,3,4-thiadiazole and its methyl derivatives, 1439.
Some observations on the structure of ethylenethiuram monosulphide, 2349.
Thorne, M. P. See Jones, M. H., 2303.
Tickner, A. W. See Manton, J. E., 858.
Timell, T. E. See Bowering, W. D. S., 311; Croon, I., 720; Gyaw, M. O., 1957; Mian, A. J., 1191, 1511.
Tobias, I. See Fallon, R. J., 743.
Trotman-Dickenson, A. F. See Fettis, G. C., 1643.
Tulloch, A. P. The oxygenated fatty acids of the oil of wheat stem rust uredospores, 204.
Turner, J. C. See Jones, J. K. N., 1122.
Uchiyama, A. See Berse, C., 1946.
Urch, D. See Henchman, M., 1722.
Van Cleave, A. B. See Caldow, G. L., 772.
Van der Linden, R. See Stewart, R., 399, 2237.
Vanderslice, J. T. See Fallon, R. J., 743.
Vrbaski, T. and **Cvetanović, R. J.** Relative rates of reaction of ozone with olefins in the vapor phase, 1053.
A study of the products of the reactions of ozone with olefins in the vapor phase as determined by gas–liquid chromatography, 1063.
Wai, W. See McGreer, D. E., 2410.
Waid, T. H. and **Taurins, A.** Steroids. Part III. Reduction of oximinocholanic acids, 987.
Steroids. Part IV. Condensation of cholestan-3-one and cholestane-3,6-dione with formaldehyde, 1983.
Walker, L. G. See Cullen, W. R., 472.
Wall, R. A. See Jones, J. K. N., 2285, 2290.
Waring, A. J. See Watson, J. S., 298.
Warner, N. A. and **Ingraham, T. R.** Decomposition pressures of ferric sulphate and aluminum sulphate, 2196.
Watson, J. S. and **Waring, A. J.** Kinetics of the thermal decomposition of tetramethyltetrazen, 298.
Watters, C., Daoust, H., and **Rinfret, M.** Heats of mixing of polyisobutylene with some organic solvents, 1087.
Weed, J. W. R. See Levi, I., 1135.

Weidmann, G. Separation of some heavy metals by solvent extraction and by paper chromatography, 459.
Westbury, R. A. and **Winkler, C. A.** The reactions of active nitrogen with hydrogen sulphide and carbon disulphide, 334.
Westland, A. D. Some observations on the theory of π-bonding in inorganic compounds, 1300.
Whalley, E. Structure of Bridgman's black carbon disulphide, 2105.
Wheeler, O. H. Étard reaction. III. Nature of the complex, 2137.
White, R. F. M. See Gillespie, R. J., 1371.
Wilmshurst, J. K. Sensitive frequencies. V. The sensitive ammine frequencies and electronegativities of complex transition metal ion radicals, 467.
Winkler, C. A. See Haggart, C., 329; Kelly, R., 2514; Westbury, R. A., 334.
Wojciechowski, B. W. and **Laidler, K. J.** Free radical mechanisms for inhibited organic decompositions, 1027.
Wolfgang, R. See Henchman, M., 1722.
Woods, R. J. and **Spinks, J. W. T.** The radiolysis of some organic halogen compounds in aqueous solution, 77.
Worsfold, D. J. and **Bywater, S.** Anionic polymerization of styrene, 1891.
Wright, G. F. See Meredith, C. C., 1177; Robson, J. H., 1, 21.
Wright, I. G. and **Hayward, L. D.** The pentitol pentanitrates, 316.
Yaffe, L. See Bailey, R. A., 1871, 2074; Santry, D. C., 421, 464.
Yaffe, L. and **Fishman, J. B.** Disintegration-rate determination by 4π-counting. Part V. Further studies on absorption and scattering of β-radiation, 1113.
Yamaguchi, G. and **Sakamoto, K.** The identity of bayerite-*a* and bayerite-*b*, 1395.
Yang, K. Effect of nitric oxide in the γ-radiolysis of ethane at very low conversions, 1234.
Yates, K. See Edward, J. T., 1518, 2271.
Yoganarasimhan, S. R. See Rao, C. N. R., 2359.
Yoshino, Y. See Lister, M. W., 45, 1291, 2342.
Young, L. Anodic oxide films on niobium: Thickness, dielectric constant, dispersion, reflection minima, formation field strength, and surface area, 1141.
Zaionchkovsky, A. See Rosenthal, A., 2277.
Ziegler, P. See Amos, A. A., 1130.